

G3ZME  
G6ZME

# News Letter TDARS

TELFORD AND DISTRICT AMATEUR RADIO SOCIETY

[www.TDARS.org.uk](http://www.TDARS.org.uk)

FOUNDED 1969

[www.TelfordHamfest.co.uk](http://www.TelfordHamfest.co.uk)

Issue 276

December 2016 / Jan. 2017

[www.TDARS.org.uk](http://www.TDARS.org.uk)

## Programme

[www.telfordhamfest.co.uk](http://www.telfordhamfest.co.uk)

- December 14** *Christmas Meal. Venue The Woolpack, Shawbirch (TF2 0LW).  
Note: 4 way traffic lights at Shawbirch island.*
- December 21** *Guest speaker—Neil Simmonds 'Homebrew Construction Techniques'  
incl. dead-bug, Manhattan style, acid etch, CNC engraved PCB etc*
- December 28** *Informal meeting—GX3ZME On the Air. 9pm, 144.600 FM*
- January 4 (2017)** *First-in-the-Month Committee meeting and GX3ZME on the air*
- January 11** *Winter Projects #2 Update. Bring along your project if possible*
- January 18** *Contest and portable planning for 2017. New mini-expedition ?*
- January 25** *Open Forum—your ideas for the coming year for TDARS*
- February 1** *First-in-the-Month Committee meeting and GX3ZME on the air*
- February 8** *Under-a-Fiver Construction competition (entries cost <£5)*
- February 15** *Raspberry Pi & Arduino for beginners. John M0JZH explains*
- February 22** *Bowls Evening with the LWWH Bowls Club. 7pm start. Refreshments*
- March 1** *First-in-the-Month Committee meeting and GX3ZME on the air*
- March 8** *Main Construction Competition. Have you finished that winter project?*
- March 15** *"Something Old . . . ." Bring along any interesting, older elec. Item*
- March 22** *Visiting Speaker planned : T.B.A.*
- March 29** *Annual General Meeting.*

**For Amateur Radio Exam Training—enquiries to Mike G3JKX (01952 299677)  
For Morse Training and Morse Proficiency Tests Martyn G3UKV or Eric M0KZB.  
For Equipment Loans & Returns contact Don M0TBQ.**

**Radio Amateur Exams- Latest: [www.tdars.org.uk/html/training.html](http://www.tdars.org.uk/html/training.html)**

VILLAGE HALL, MALTHOUSE BANK, LITTLE WENLOCK, TELFORD, SHROPSHIRE. TF6 5BG

# Editorial

Last Newsletter I mentioned the inclusion of the G-QRP Mini-Convention into our own Telford Hamfest, which will take place on the first weekend of September 2017. Fairly extensive discussions have taken place with the G-QRP organisers before, during and since their final convention and rally held in Rishworth (near Halifax) in October. So now the planning work begins!

As I see it, this is both a great challenge, but also a marvellous opportunity to reverse the gently declining number of people—both exhibitors and visitors—coming to our HamFest event each year.

So—What will remain the same? Well, the well-established format of a dynamic radio rally, with 400-500 visitors and 30+ traders and exhibitors, as well as a well-known speaker to deliver a topical presentation.

The income, after considerable expenses are deducted, pays for many extras in the running of the TDARS club, so that we remain a first-class midlands radio society.

What will change? On Saturday (2nd Sept.), a local hotel will be the venue for a vibrant social get-together, where radio amateurs with an interest in QRP (low power transmit) meet to share their interest in this aspect of the hobby. We expect many to explore the local area (eg Ironbridge Gorge Museum Trust with its 10 visitor sites and Telford Shopping Centre) and stay overnight at the chosen hotel, or elsewhere. In the evening, there will be a Constructors' Evening ('Buildathon') at the hotel venue, aimed at the less experienced constructor, with the support of several very experienced builders, to complete a novel piece of radio or electronic equipment in one evening. This follows the format of the highly successful "Rishworth Convention" organised by the national G-QRP Club for many years. On Sunday, there will also be several speakers at the HamFest, rather than just one; we hope this will attract more visitors and extend the duration of our HamFest later into the afternoon, to the benefit of everyone.

Nearly all the traders at the October event have been approached with a view to transferring their allegiance to our event, but inevitably some will not travel to Telford if they are based too far away from here, or the date is unsuitable. Likewise, some northern visitors will stay away, although we have been assured of good publicity through the G-QRP quarterly magazine which has a large circulation across the UK. An article is due in the forthcoming Winter Quarterly edition.

As I said at the outset, this is a great Challenge, but also a marvellous Opportunity for us. The TDARS Committee hope that all members of the club will rise to this extraordinary challenge. (See bottom page 7)

**P.S.** Squeezed in this photo of cross-bar being added to antenna masts at LWVH. Thanks to helpers. Photo by M0TBQ 12/12/16



## **TELFORD & DISTRICT AMATEUR RADIO SOCIETY**

**CHAIRMAN:** Eric Arkinstall M0KZB (01743 240286)

**VICE-CHAIRMAN:** Martyn Vincent G3UKV (01952 255416)

**SECRETARY:** John Humphreys M0JZH (07824 737716)

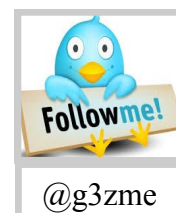
**TREASURER:** Jim Wakenell G8UGL (01952 684173)

**CURATOR :** Don Nicholls M0TBQ (01952 411680)

**NEWSLETTER EDITOR:** Martyn Vincent G3UKV (01952 255416)

**PUBLICITY/WEBMASTER :** Dave G0CER (01630 638699 or 07971 416940, leave msg)

**Committee:** Simon G0UFE; Martin 2E0TRO; Brian G6UDX; Paul 2E0TIL; Trophies/Certs: G3UKV;  
QSL Manager Paul M0PNN; Assist.Curator: TBA; Village Hall Committee Liaison officer Martin 2E0TRO



# Qtc: News & Information

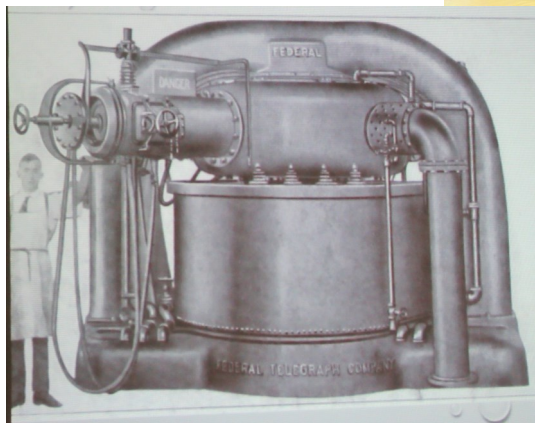
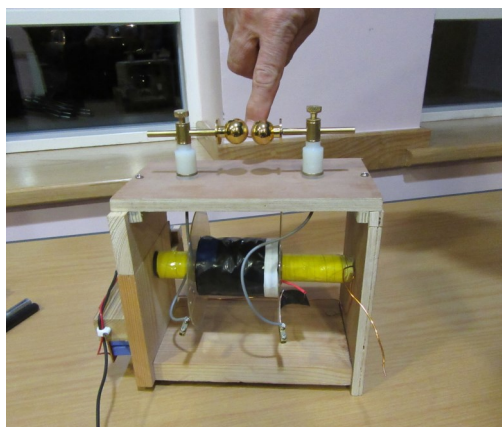


**TDARS MEETINGS EVERY WEDNESDAY AT LITTLE WENLOCK VILLAGE HALL UNLESS INDICATED OTHERWISE ON THE FRONT PAGE PROGRAMME. ROOM BOOKED FROM 7PM - 10PM. MEETINGS USUALLY COMMENCE AT 8PM**

**Please note: A current membership card must be shown to borrow TDARS equipment. Please return borrowed equipment promptly .**

**THE HAMSTERS**—the TDARS project to attract youngsters into amateur radio and electronics—continues to be very popular with 7 or 8 attending each session, supported by their parents, and the lead helper, Julie. They have now completed the medium wave crystal set, on which Radio 2 could be heard clearly, and are now about to construct a simple audio amplifier to increase the output volume. Eric (M0KZB) has undertaken all the preparation and kits, ably supported by Paul, Heather, John and others. Winding 28ft. of enamelled copper wire onto a plastic former was quite a feat in the confines of our meeting room. Well done The Hamsters!

**Richard G0VXG's talk** (Oct. 12) was rather unusual in that he generated some rather wideband spark energy on un-defined frequencies—all in the cause of science. Here you can see his homebrew storage capacitor and the apparatus producing a visible spark at several KV. Richard also outlined the historic background, going back to the nineteenth century. The commercial equivalent shown below is a 1 Megawatt Poulsen generator used around 1918 for shore-to-ship comms:- note the size of the man alongside the TX—Real QRO !



telfordhams

The variety of **Winter Construction Projects** is rather wide this year, including simple VHF/UHF antennas, an HF/6m Power Amplifier, baluns, P.S.U., Light Communication transceiver and a learner's Surface Mount Device (SMD) practice kit, complete with about 60 devices with which to practise. The meeting set for **January 11th** is the opportunity to bring along your 'work in progress' project to share with others, and if necessary, support and guidance to solve any problems.

The hastily re-arranged meeting that took place at the end of November was led by Jim G8UGL who has undertaken the work associated with **upgrading our voice repeater GB3TF**, which resides at LWVH. Robin G1MHU generously donated a compact PC computer which links the 'TF Repeater box to the Internet, and the Wires-X control box. The Village Hall Committee organised the BT Internet link, for which we currently pay 50% of running costs.





Jim has written (page 5) a very useful guide to using GB3TF via the Internet. It still operates as a bog-standard FM repeater, of course, with the usual ctcss 103.5Hz access sub-audible tone. One limitation, set by Yaesu, is that the Repeater will not re-transmit C4FM (Fusion) mode through the Internet, only locally. We are not quite sure why there is this restriction, but perhaps it will change some time in the future. Meanwhile, using the dtmf codes available from such sources as [https://www.yaesu.com/jp/en/wires-x/id/id\\_eu.php](https://www.yaesu.com/jp/en/wires-x/id/id_eu.php) preceded by the # key, you can have QSOs worldwide, or just use GB3TF locally FM or digital.

The **surplus equipment sale** (Nov. 9) raised over £100 for club funds. Thanks to all those who brought items for sale, and then donated the money raised to the club's coffers.



The "**widget**" **SWR to Return Loss (+ more) calculator** made by nearly 20 members present at the Nov. 16 meeting was popular, although as the L/H photo shows, some members' attention did wander at times . . . But I'm sure Brian was just checking the accuracy of calculations.



Following G0VXG's talk and demonstration referred to on page 3, **Allen G0AGC**, who has great experience and knowledge of maritime comms, sent the following e-mail (13 Oct.)

" Hi Richard,

*Didn't get a chance to thank you last night for a very interesting and informative talk on digital filters and spark transmitters, I thoroughly enjoyed it.*

*At the end of the talk on spark transmitters I said that they were still in use at sea in the late fifties which was correct. They were used on a few ships as a back-up emergency transmitters running off batteries. I can imagine the attention it received when they were used in an emergency!. I also understand that they became totally illegal on 31st December 1957.*

*Allen G0AGC "*

Another e-mail (4 Dec.), this time from Mike G6DFD, provides some further information, relating to another popular digital mode in the Midlands—DMR :-

" Afternoon,

*With the successful introduction of our own Digital C4 repeater now connected to the Internet, I thought some people might be interested in other digital repeaters in Shropshire.*

*I know many of you already have DMR radios, but for those thinking of giving digital a try, could I recommend buying an inexpensive DMR radio. This will not only give you both FM access to 'TF and the world wide network of Fusion, but also access to 5 digital DMR repeaters here in Shropshire.*

*There are many second-hand surplus DMR radios available that have been modified for the ham frequencies and of course our friends in China now produce DMR digital radios for less than a quarter of the price of Fusion radios. I've included below details of the Shropshire DMR Cluster, but the best DMR repeater that is connected to the Internet is in Bewdley. GB7FW is connected to the Phoenix network which gives access to all the DMR repeaters in the world. The Phoenix DMR network is unique in that it can only be accessed through RF. So no Echo-link or people using smart phones or dongles.*

*Regards Mike Pymm G6DFD "*

**Thanks for Newsletter input from Graham G7LMF, Don M0TBQ, Jim G8UGL, Dave G0CER, Heather/Paul M0HMO/G8AQA, Paul M0PLA.**

**Next edition February 2017.**

## Using the GB3TF Repeater via the Internet by Jim G8UGL

Hi Folks,

Just a few lines to try and clarify the use of GB3TF when using the internet connection.

To clear the confusion between "NODES" and "ROOMS".

**NODES** are access points that maybe either personally operated NODES maintained by individual amateurs, or repeaters that are maintained by radio clubs or repeater groups.

**ROOMS** are common community areas that any operator may operate. They may also be "private rooms" that can only be accessed with permission from the room keeper.

When accessing a ROOM you may find other NODES located there. These NODES are active to your access, so all those in the ROOM will hear your QSO. If you wish to access a single NODE in a ROOM you can do this by entering its DTMF number. This gives you access to that NODE only.

All NODE DTMF codes can be found on the Wires X website.

### GB3TF activation protocol.

- 1) TF frequency uplink: 434.800 downlink: 433.200.
- 2) CTCSS tone 103.5Hz (G).
- 3) DTMF code of the NODE or ROOM you wish to activate.
- 4) Operate the DTMF tones on your radio, by whatever means it requires.

(Note: the tones must be preceded by the hash tag key (#)).

- 5) When having your QSO via the internet it's best if you leave a couple of seconds between overs to allow the servers to reset; this will prevent you or the other station missing any information being conveyed.
- 6) The NODES and ROOMS have a timeout function set on them, so if you "forget" to disconnect they will do so automatically after a few minutes. But I would recommend you practise "good radio etiquette" and disconnect when finished.

**You can invoke a disconnect by using DTMF codes #99999.**

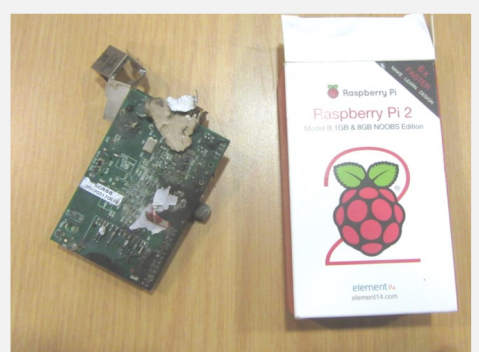
I hope this has gone some way to making it clearer to you. Please enjoy our new twist on 'TF and if there are any questions you have, please contact me and I will try to clear any points.

**JIM G8UGL**

**[Editor's Note:** On the subject of '*good radio etiquette*', perhaps it's worth noting that when someone is trying out internet links using #DTMF tones via 'TF, they should also announce by voice their call sign, which after all is actually part of our licence conditions, and it helps others listening to follow proceedings.

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A couple of photos sent in by Heather M0HMO and Paul G8AQA, demonstrating a curious sense of humour (research?) into what happens to a Raspberry Pi microprocessor (front and reverse views) when attached to a firework rocket . . . . It was recovered quite a distance from the launch pad.





**From Paul, M0PLA . . . .**

“ Hi Martyn

Not sure if this would be any good for the Newsletter. I have started to find out about SOTA (Summits on the Air) and done a few activations already.

I was kindly assisted on my first day's outing which was last Friday (Dec. 2nd) with John 'JZH. I am trying to lose a little weight and play radios at the same time.

John M0JZH also on the Wrekin



John M0JZH also  
on the Wrekin



Both Paul & John were using FT817s with 5 watts O/P. On 2m, John used SSB, while Paul stuck with FM. Paul also went on 20m with a Moxon antenna, and worked into the States. Nice going!

**~+~+~+~+~+~+~+~+~+~+~+~+~+~+~+~+~+~+~+**

**CQ Contest . . . . CQ Contest . . . . CQ Contest . . . .**

A few entries and results have emerged in recent weeks.

**UKAC—TDARS—** Currently (as of 12 Dec.) entries have been sent in by Dave G0CER (78th of 717 entries), G7LMF, G8UGL, G3UKV, 2E0DTB, M0PNN, M0JZH and GP3ZME/P (Guernsey), covering all 9 bands from 6m to 3cm. Just December's results to be added.

**G0CER—CQWW** (raw scores) using special contest call G0C in QRP Section (FT897 min. o/p) places Dave 198th of 1802 worldwide entries. Using new Comet antenna at about 10m height.

**G0CER—CQWW SSB.** SCC call G0C. All bands 10-160m. Made 440 QSOs for 124,460 claimed points score. Comet H-422 antenna on SCAM mast.

**M0PNN-CQWW SSB.** Special Contest Call M4M. All bands 160-10m. 424 QSOs. New vertical antenna OCF dipole for 10m, and 34ft. Vertical.

**G3UKV**— ‘Low Band’ microwaves’. 5th 1.3GHz, 2nd 2.3GHz, 1st 3.4GHz. Overall 2nd of 14.

**G7LMF— WAEDC RTTY** contest. 754th of 813 worldwide entries (preliminary). First ever rtty entry. Using half-size G5RV antenna.

**G(P)3ZME/P— Microwaves.** 5.7GHz 1st in 4 out of 5 sessions. 10GHz 1st in 3 out of 5 summer sessions. Ops: G8UPF, G4NKC, G3UKV, G8UGL. From Brown Clew & Guernsey.

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# Paul M0PLA on the Wrekin



Done Long Mynd, Stiperstones and The Wrekin so far.  
Looking at Brown Clee and Titterstone this weekend. “

## Unmistakably—the Stiperstones



## What can QRP do for me? A lot actually. By Dave G0CER (G0C)

I have done many digimode HF contests over the years; you try your best to improve, your place, work some DX and even try winning. Usually I'm in a 100w class, but most contests have a QRP section.

Last year, and now this year I entered one of the years biggest global contests 48 hours long CQWW RTTY using 5w and that's a quiet voice amongst a loud cacophony of noise from the big stations. Going against stations of multiple transmitters and multiple operators - serious folk, very loud. You might think a QRP stations would be lost but in contests - people listen carefully for contacts, especially quiet ones, in case they're a long way off, they do pick the low hanging fruit first most times.

My setup was Yaesu FT897 (adjusted down to 5W out for the contest), an ATU, SWR/Power meter, 20 meters of coax up to my Comet H422 antenna for 10-40m and inverted L wire antenna for 80m. My computer was running Mixw software for the RTTY operations and logging.

I hadn't checked conditions but was pleased to find 21mhz open when I started late Saturday morning with East Asia in and the US was just arriving.

Here are some I worked in the first couple of hours:  
ZB2TT, JH6QFJ, YV1YLY, 4X4AK, CR3W, RW0A

The afternoon was steady working USA and Canada - I'm forgetting I've only got 5w at times, then a busy DX station comes along and it's 20-40mins of trying to get through - this is where you learn timing skills or even waiting till every one else has had their feed of the station, a quick send of your call twice and they reply - your signals are getting there!

As the evening came on moved down to 20m - solid noise in places, but there is always a gap to find - remember not to lose hours on stations you may never get (like me and the BD7 station!) Go pick up 'easy' ones like EU or the US, then suddenly HI3/HA3JB at 22:05 on 20m.

Late evening on 7Mhz I got HK3TU and YW5T I got them before many others did I think, it went crazy not long after I was still smiling, I couldn't believe they were coming back to me!

I finished the weekend with a few EU and 8P6K on 80m on my wire and on 28mhz CW4MAX in Chile and 9H2HN was my best QSO 5000 miles on 10m with 5W!

I ended my evening by in-filling of stations on 7Mhz UB7K and mainly EU and some Americans.

In summary my station setup is one I know and have set up many times over the years - not usually for 5w out though! The Comet antenna is new and proved to be very good. That is the controlled part of it - uncontrolled are the radio conditions and they proved to be good at the time. All in I worked 251 stations over the weekend, around 14.5 hours operating.

Contests are great for working those places you don't normally think you can get to - digimodes help and a bit of luck with good conditions on the day. There is life out there, even now! The next big contest is CQWW RTTY WPX - another 48 hour one with QRP section and you could choose a single band to enter on. How about it? 73 Dave G0CER

<http://www.eQSL.cc/Member.cfm?G0CER>  
<http://g0cer.blogspot.com>

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## Thought for the Month . . . . .

Do you know the story of three friends, Somebody, Everybody and Nobody ?

There is a job to be done. Everybody thinks that Somebody will do it, but Somebody is quite sure that Everybody is getting on with it. So, neither Somebody nor Everybody feels the need to get going, safe in the knowledge that the job is being done. But do not fear, the job is being seen to — by Nobody. . .





## JOTA 2016—by Graham G7LMF



As with every year for the last 59 years the 3<sup>rd</sup> weekend of October saw the annual Scouts Jamboree On The Air (JOTA) and for the 5<sup>th</sup> year running I arranged for members of TDARS (this year, John – M0JZH, Simon – G0UFE, Paul – M0PLA and myself – G7LMF) to set up an amateur radio station for the 2<sup>nd</sup> Wellington Scout Group.

This year was slightly different to previous years as we planned to run JOTA from the Wrekin Scout Camp on Spout Lane instead of from the scout hut in Wellington. Because we had a more natural environment to play with we changed things around a bit and, in addition to the HF stations (GB2WSG).



John and Simon also included radio DF and some mobile operating from the top of The Wrekin itself. Whilst John and Simon were keeping the youngsters busy outside, Paul and myself were running the radios and although the bands were not very good (only 18 contacts made!) we did make some good contacts (GB2GP – Gilwell Park – Scout HQ, GB2JSA – Jersey Scouts and Simon - 2W0CHV as well as contacts into Belgium, France, Germany, Spain and Poland) the day's activities were well received by the youngsters.

As day turned to night it was time to do something totally different - **Light Beam Communications**. At 7pm, John and Simon set off up the Wrekin for the second time in a day and this time I went along. After going up the steep way during the day John and Simon decided that driving around to the Forest Glen car park and going up the "tourist route" would be the more sensible option.

John had borrowed one set of equipment which we carried up to just below the TV transmitter and started to set up. We had two contact options pre-arranged for the event, one with Martyn (G3UKV) into his home location and the other with Paul (M0PNN) and his son on top of Lilleshall Hill.



The light beam was used for talking from the Wrekin to Martyn ('UKV) and Paul ('PNN) in turn and 2 mtr. FM was used for the talkback.

This Light Beam Communications demonstration proved very popular with about a dozen Scouts and a handful of Explorer Scouts making the ascent of the Wrekin to join us and have a go.

And finally, a very big vote of thanks to all those involved in the day and especially, Paul ('PNN) and his son for standing on top of a very cold Lilleshall Hill, John ('JZH) and Simon ('UFE) for impersonating mountain goats by climbing the Wrekin twice in one day to get the hobby out to the wider audience.

Graham  
G7LMF

